



# Solid State Devices, Inc.

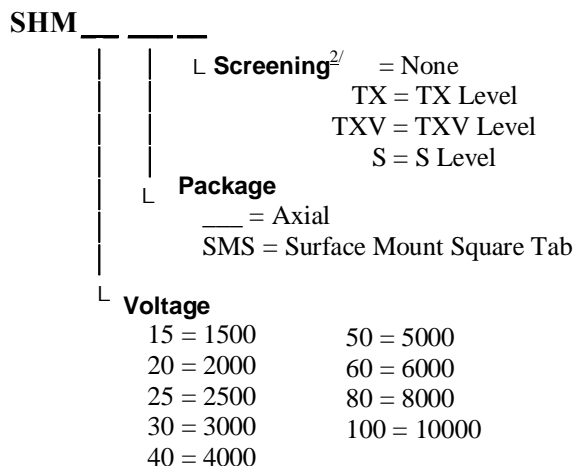
14701 Firestone Blvd \* La Mirada, Ca 90638  
 Phone: (562) 404-4474 \* Fax: (562) 404-1773  
 ssdi@ssdi-power.com \* www.ssdi-power.com

## SHM15 - SHM100 and SHM15SMS - SHM100SMS

100-250 mA  
1500 – 10000 VOLTS  
5 μsec  
HIGH VOLTAGE  
RECTIFIER

### Designer's Data Sheet

#### Part Number / Ordering Information <sup>1/</sup>



#### FEATURES:

- Standard Recovery: 5 μsec Maximum
- PIV to 10000 Volts
- Hermetically Sealed
- Void-Free Construction
- Metallurgically Bonded
- 175°C Maximum Operating Temperature
- TX, TXV, and Space Level Screening Available<sup>2/</sup>

### ELECTRICAL CHARACTERISTICS

Part Number	Peak Inverse Voltage	Average Rectifier Current		Maximum Reverse Current		Maximum Forward Voltage	Maximum Surge Current (1 Cycle)	Maximum Reverse Recovery Time	Maximum Junction Capacitance	Typical Thermal Impedance		
Symbol	PIV	I <sub>0</sub>		IR @ PIV		V <sub>F</sub>	I <sub>FSM</sub>	t <sub>RR</sub>	C <sub>J</sub>	θ <sub>JL</sub>	θ <sub>JE</sub>	
Units	Volts	mA		μA		Volts	Amps	μsec	pF	°C/W		
Conditions	Volts	25°C	100°C		25°C	100°C	25°C	25°C	25°C	VR = 100V fT = 1MHZ	°C/W	
			L	SMS								
SHM15	1500	250	185	215	1.0	25	6	15	5	8	65	55
SHM20	2000	250	185	215	1.0	25	6	15	5	8	65	55
SHM25	2500	250	185	215	1.0	25	6	15	5	8	65	55
SHM30	3000	150	110	130	1.0	25	10	10	5	4	65	55
SHM40	4000	150	110	130	1.0	25	10	10	5	4	65	55
SHM50	5000	150	110	130	1.0	25	10	10	5	4	65	55
SHM60	6000	100	75	85	1.0	25	16	5	5	2	65	55
SHM80	8000	100	75	85	1.0	25	16	5	5	2	65	55
SHM100	10000	100	75	85	1.0	25	16	5	5	2	65	55

<sup>1/</sup> For Ordering Information, Price, Operating Curves, and Availability – Contact Factory.

<sup>2/</sup> Screening based on MIL-PRF-19500. Screening flows available on request.

<sup>3/</sup> Operating and testing over 10,000 V/inch may require encapsulation or immersion in a suitable dielectric material.

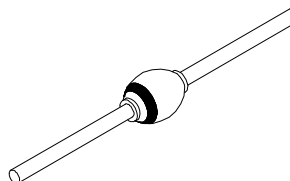
<sup>4/</sup> Max. forward voltage measured with instantaneous forward pulse of 300μsec minimum.

<sup>5/</sup> Max. lead temp. for soldering is 250°C, 3/8" from the case for 5 sec maximum.

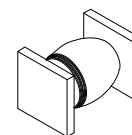
<sup>6/</sup> Operating and storage temperature: -65°C to +175°C.

<sup>7/</sup> Reverse Recovery Test Conditions: IF=50mA, IR=100mA, IRR=25mA, TA=25°C.

Axial



SMS (Square)



**NOTE:** All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RV0007B

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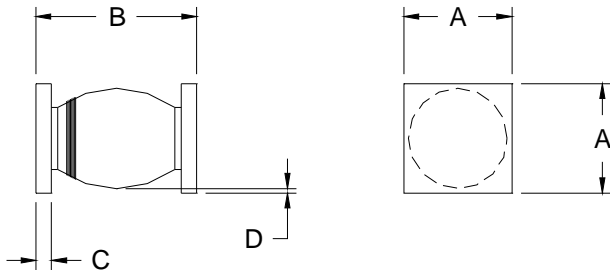
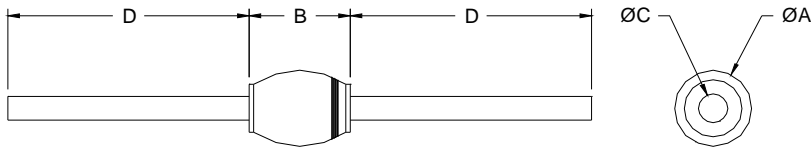


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**SHM15 - SHM100  
 and  
 SHM15SMS - SHM100SMS**

**PACKAGE OUTLINE: AXIAL RECTIFIER**



DIMENSIONS: SHM15-50		
DIM	MIN	MAX
A	---	.140"
B	---	.300"
C	0.025"	0.033"
D	1.0"	---

DIMENSIONS: SHM60-100		
DIM	MIN	MAX
A	---	.140"
B	---	.400"
C	0.025"	0.033"
D	1.0"	---

DIMENSIONS: SHM15-50		
DIM	MIN	MAX
A	.127"	.140"
B	.280"	.320"
C	0.022"	0.028"
D	.002"	---

DIMENSIONS: SHM60-100		
DIM	MIN	MAX
A	.127"	.140"
B	.360"	.450"
C	0.022"	0.028"
D	.002"	---

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**DOC**